

Metropolitan State College of Denver
SPS Community Physics Education Program
Advisor: Richard Krantz

2003-2004 Marsh White Report

Thanks in large part to the generosity of the 2003-2004 Marsh White Award, the MSCD/UCD SPS Chapter had a very successful year of outreach. The much-needed boost really got our outreach ball rolling. We were able to make the award go much farther than we had anticipated.

With students ranging in age from 8-21, through coordination with high school and middle school science and math departments, our goal was to expose them to science, specifically physics, and suggest that a career in science would be rewarding and NOT outside their range of career choices. Initially we were simply going to continue our outreach with replacement equipment in the form of "PEP" kits we had produced for an earlier semester. One of the purposes was to be able to buy some elementary physics texts for the underprivileged students to whom we presented for a take home gift. We did all of this successfully but got much more in return!

Each presentation met with tremendous enthusiasm from the students. The presentations had two components: a short principles lecture followed by hands-on, guided experimentation. Most of the presentations were scheduled for duration of 30-45 minutes. We had also refined and added additional topics to our presentations. However, with student inquires, spontaneous collaboration, and shouting additional experimental ideas to each other, the typical presentation lasted an hour and a half or more.

Word on these presentations soon got out. We were doing high quality educational work and people wanted to know more about us and work with our organization. Our chapter was asked to participate in the Academic & Student Services Fair at Excel day on Auraria Campus at the Tivoli Turnhalle on April 30th. SPS contributed an exhibit throughout the event highlighting the outreach programs and special student gatherings for prospective college students from the local high schools. Coincidentally, Colorado M.E.S.A. members and sponsors were also at the Fair during their MESA High School Jamboree. We spoke with Gloria Nelson, local director of MESA, and a few other youth leaders who agreed to the idea of doing outreach together in the future.

Expanding our outreach efforts to the general public as well as grades K-12, we presented a Physics Workshop for the students sponsored by the African American Leadership Institute (<http://www.aalirockymtn.org/>) during the "Education: New Approaches for African Americans" event using our new "PEP" kits.

Through collaboration arranged by Dr. Richard Krantz with local schools, the Denver Mayor's office, and our two sponsoring schools (MSCD/UCD), we now interact regularly with the youth in the surrounding community in a very well organized outreach program.

This program places our member volunteers in direct contact with students from all area schools who would benefit most at one central location: The Youth Development Center.

Inspired by feedback from our interaction with K-12 students and in an effort to make physics accessible to everyone by removing any fear of ridicule, we have opened an online web forum under our chapter's SPS website for anyone to ask physics questions and have them answered.

(http://www.mscd.edu/cgi-bin/cgiwrap/~sps/onthefly.cgi?c=tutors&p=tutor_main)

As an example of the community's growing awareness of our chapter, we have been interviewed for articles in publications like the @Metro, a weekly an electronic news bulletin, which are interested in youth education programs.

http://www.mscd.edu/~collcom/@metro/tw@metro_vol1/home_tvw1031704.htm#story5

Additional credit for our success goes to both the University of Colorado at Denver and the Metropolitan State College of Denver for their free use of equipment and expertise.